



**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

In re Application of:

Inventor: Brian D. Gantt et al.

Serial #: 09/186,270

Filed: November 4, 1998

Title: METHOD AND APPARATUS FOR
INTERACTIVELY MANIPULATING
AND DISPLAYING PRESUMPTIVE
RELATIONSHIPS BETWEEN
GRAPHIC OBJECTS

) Examiner: L. Sealey

) Group Art Unit: 2671

) Appeal No.: _____

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THIRD SUPPLEMENTAL APPEAL BRIEF

Technology Center 2600

Commissioner for Patents
Washington, D.C. 20231

Dear Sir:

This Third Supplemental Appeal Brief is being submitted in response to the Examiner's Office Action dated November 19, 2002 received in the above-identified application. The Third Supplemental Appeal Brief is submitted in triplicate.

No fee is required for filing this Third Supplemental Appeal Brief. However, the Office is authorized to charge any necessary fees or credit any overpayments to Deposit Account No. 50-0494 of Gates & Cooper LLP.

I. REAL PARTY IN INTEREST

The real party in interest is Autodesk, Inc., the assignee of the present application.

II. RELATED APPEALS AND INTERFERENCES

There are no related appeals or interferences for the above-referenced patent application.

III. STATUS OF CLAIMS

Claims 1-81 are pending in the application.

Claims 1, 4, 21, 25, 28, 45, 48-51, and 65-68 were rejected under 35 U.S.C. §103(a) as being anticipated by Venolia, U.S. Patent No. 5,463,722 (Venolia).

Claims 14-15 and 38-39 were rejected under 35 U.S.C. §103(a) as being obvious in view of the combination of Venolia, U.S. Patent No. 5,463,722 (Venolia) and Eckart, U.S. Patent No. 5,408,606 (Eckart).

Claim 24 was rejected under 35 U.S.C. §103(a) as being obvious in view of the combination of Venolia, U.S. Patent No. 5,463,722 (Venolia) and Rostoker, U.S. Patent No. 5,623,418 (Rostoker).

Claims 2-3, 5-13, 16-20, 22-34, 26-27, 29-44, 46-47, 52-64, and 69-81 were indicated as being allowable if rewritten in independent form to include the base claim and any intervening claims.

IV. STATUS OF AMENDMENTS

No amendments to the claims have been made subsequent to the final Office Action.

V. SUMMARY OF THE INVENTION

Independent claims 1, 21, 24-25, and 45 are generally directed to operating a computer aided design (CAD) system in presumptive mode. A selected graphic object is moved relative to a graphic pointing symbol, and the system determines when the selected graphic object is within a predetermined proximity of an underlying graphic object. The selected graphic object is then manipulated into a geometric relationship with the underlying graphic object according to predetermined geometric rules. This geometric relationship is dynamically updated based on movement of the graphic pointing symbol while the graphic pointing symbol remains within the predetermined proximity of the underlying graphic object. Support for these claims can be found in U.S. Patent No. 5,572,639 at col. 11, line 42 through col. 14, line 13.

Independent claims 48 and 65 are generally directed to a computer-aided design (CAD) system that displays a first graphic object on a computer and displays at least one point of interest on the computer when a pointing symbol is within a predetermined proximity of the first graphic object. Support for these claims can be found in U.S. Patent No. 5,572,639 at col. 3, lines 48-49, col. 1, 56-64, and col. 5, line 20 through col. 6, line 7.

VI. ISSUES PRESENTED FOR REVIEW

1. Whether claims 1, 4, 21, 25, 28, 45, 48-51, and 65-68 are obvious under 35 U.S.C. §102(e) in view of Venolia, U.S. Patent No. 5,463,722 (Venolia).

2. Whether claims 14-15 and 38-39 are obvious under 35 U.S.C. §103(a) in view of the combination of Venolia, U.S. Patent No. 5,463,722 (Venolia) and Eckart, U.S. Patent No. 5,408,606 (Eckart).

3. Whether claim 24 is obvious under 35 U.S.C. §103(a) in view of the combination of Venolia, U.S. Patent No. 5,463,722 (Venolia) and Rostoker, U.S. Patent No. 5,623,418 (Rostoker).

VII. GROUPING OF CLAIMS

The rejected claims do not stand or fall together. The following claim groups are independently patentable:

1. Independent claims 1, 21, 24-25, and 45, and dependent claims 4 and 28.
2. Dependent claims 14 and 38.
3. Dependent claims 15 and 39.
4. Independent claims 48 and 65, and dependent claims 49-51 and 66-68.

Separate arguments for the patentability of each claim group are provided below or in the previously submitted Appeal Brief.

VIII. ARGUMENTS

Although the Examiner withdrew his previous rejections of claims 1, 4, 21, 25, 28, 45, 48-51, and 65-68 under 35 U.S.C. §102(e) as being anticipated by Venolia, U.S. Patent No. 5,463,722 (Venolia), and replaced them with rejections of claims 1, 4, 21, 25, 28, 45, 48-51, and 65-68 under 35 U.S.C. §103(a) as being obvious in view of Venolia, U.S. Patent No. 5,463,722 (Venolia), the basis for the rejections remains essentially the same. For example, the same portions of Venolia are used to support the rejections. In response to the Appellants' assertion that Venolia does not teach the "dynamically updating" limitations of the Appellants' independent claims, the Examiner states that this element is implied, which is why the rejection has been changed from one based on 35 U.S.C. §102(e) to one based on 35 U.S.C. §103.

Appellants' attorney disagrees with this assertion. Moreover, this Supplemental Appeal Brief hereby incorporates by reference such parts of the previously-filed Brief of the Appellants as is still applicable, in order to comply with the requirements of 37 CFR §1.192(c). The arguments presented below essentially reiterate the arguments of the previously-filed Brief of the Appellants, but also address this new grounds of rejection raised in the Office Action.

A. Appellants' Independent Claims 1, 21, 24-25, And 45 Are Patentable Over The References

With regard to independent claims 1, 21, 24-25, and 45, the Appellants' invention is patentable over Venolia, because Venolia does not teach nor suggest the various elements of Appellants' claims. Specifically, Venolia does not teach or suggest the combination of claim limitations directed to: moving a selected graphic object relative to a graphic pointing symbol, determining when a selected graphic object is within a predetermined proximity of an underlying graphic object, manipulating the selected graphic object into a geometric relationship with the underlying graphic object according to predetermined geometric rules, and dynamically updating the geometric relationship based on movement of the graphic pointing symbol while the graphic pointing symbol remains within the predetermined proximity of the underlying graphic object.

In the Office Action, the Examiner asserts that the "dynamically updating" limitations of the Appellants' independent claims can be found in Venolia at col. 5, lines 8-11 (more accurately, col. 4, line 67 – col. 5, line 14).

However, at the indicated location, Venolia sets forth only the following:

"The present invention provides a method for aligning a displayed representation of an object comprising the steps of, displaying a representation of a first object in an initial position on a display screen under the control of a processor, displaying a representation of a second object on a display screen under the control of a processor, moving the representation of the first object toward the second object in a visually continuous manner using a cursor whose position is controlled by a cursor movement mechanism, calculating a current position for the first object which is displaced from a cursor dictated position by an amount which is determined as if the first object was under the gradual influence of an alignment field emanating from the second object, and displaying a representation of the first object on the display screen in the current position."

According to the Examiner, the "dynamically updating" limitations of the Appellants' independent claims are implied by this discussion in Venolia, because if the position of the cursor is related to the position of the first object, and the position of the first object is related to the position of the second object through the alignment field, the geometric relationship of the cursor to the second object is dynamically updated.

Appellants' attorney disagrees.

Venolia merely describes an alignment field gradient which emanates from objects surrounding a manipulated object. Moreover, the relationship between the objects in Venolia is not

based on the position of the pointing symbol relative to the underlying object, but is based instead on the proximity of the objects themselves. Further, the relationship between the objects in Venolia is not dynamically updated while the cursor remains within a predetermined proximity of the underlying object.

The various elements of Appellants' claimed invention together provide operational advantages over Venolia. In addition, Appellants' invention solves problems not recognized by Venolia. Thus, Appellants submit that independent claims 1, 21, 24-25, and 45 are allowable over Venolia.

B. Appellants' Independent Claims 48 And 65 Are Patentable Over The References

With regard to independent claims 48 and 65, the Appellants' invention is patentable over Venolia, because the cited reference does not teach nor suggest the various elements of Appellants' claims. Specifically, the reference does not teach or suggest the claim limitations directed to displaying a first graphic object on a computer, and then displaying at least one point of interest on the computer when a pointing symbol is within a predetermined proximity of the first graphic object.

Venolia does not identify "points of interest" on an object when a pointing symbol is within a predetermined proximity of the first graphic object. Instead, the entire object is considered to be "magnetic," rather than any specific points of interest on the object. Moreover, the magnetic relationship is between two objects, not between a pointing symbol and an object. Finally, Venolia does nothing to identify points of interest, or even magnetic objects themselves, since all objects are considered to be magnetic.

The various elements of Appellants' claimed invention recited in claims 48 and 65 together provide operational advantages over Venolia. In addition, Appellants' invention as recited in claims 48 and 65 solves problems not recognized by Venolia. Thus, Appellants submit that independent claims 48 and 65 are allowable over the reference.

C. Dependent Claims 4, 14-15, 28, 38-39, 49-51 and 66-68 Are Patentable Over The Prior Art

Dependent claims 4, 4-15, 28, 38-39, 49-51 and 66-68 are also submitted to be allowable over the prior art references. Specifically, the arguments concerning these dependent claims found in the previously-filed Brief of the Appellants are incorporated by reference herein.

IX. CONCLUSION

In light of the above arguments, Appellants' attorney respectfully submits that the cited references do not anticipate nor render obvious the claimed invention. More specifically, Appellants' claims recite novel functions and features which patentably distinguish over any and all references under 35 U.S.C. §§ 102 and 103. As a result, a decision by the Board of Patent Appeals and Interferences reversing the Examiner and directing allowance of the pending claims in the subject application is respectfully solicited.

Respectfully submitted,

Brian D. Gantt et al.

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